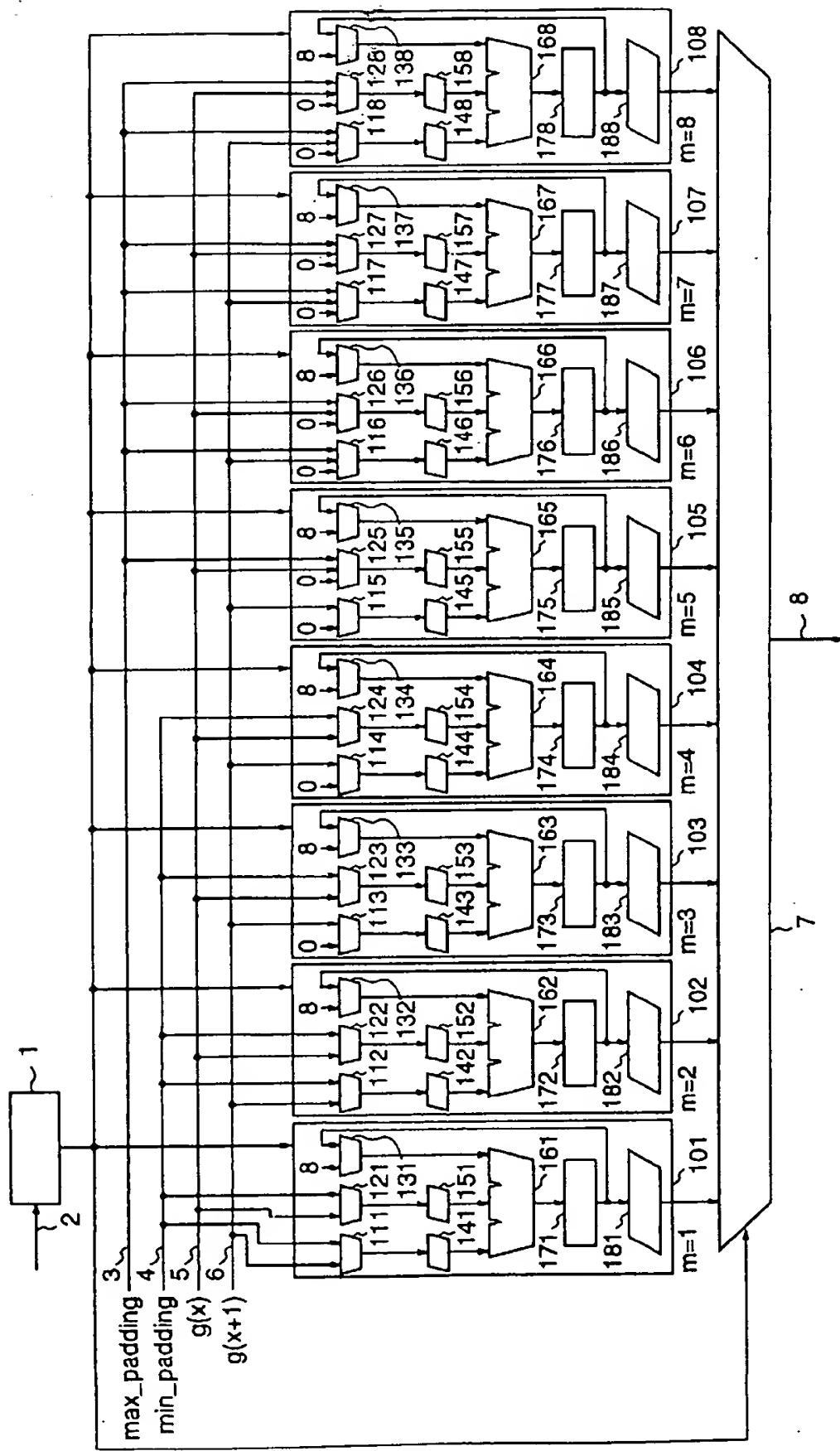


Fig. 1

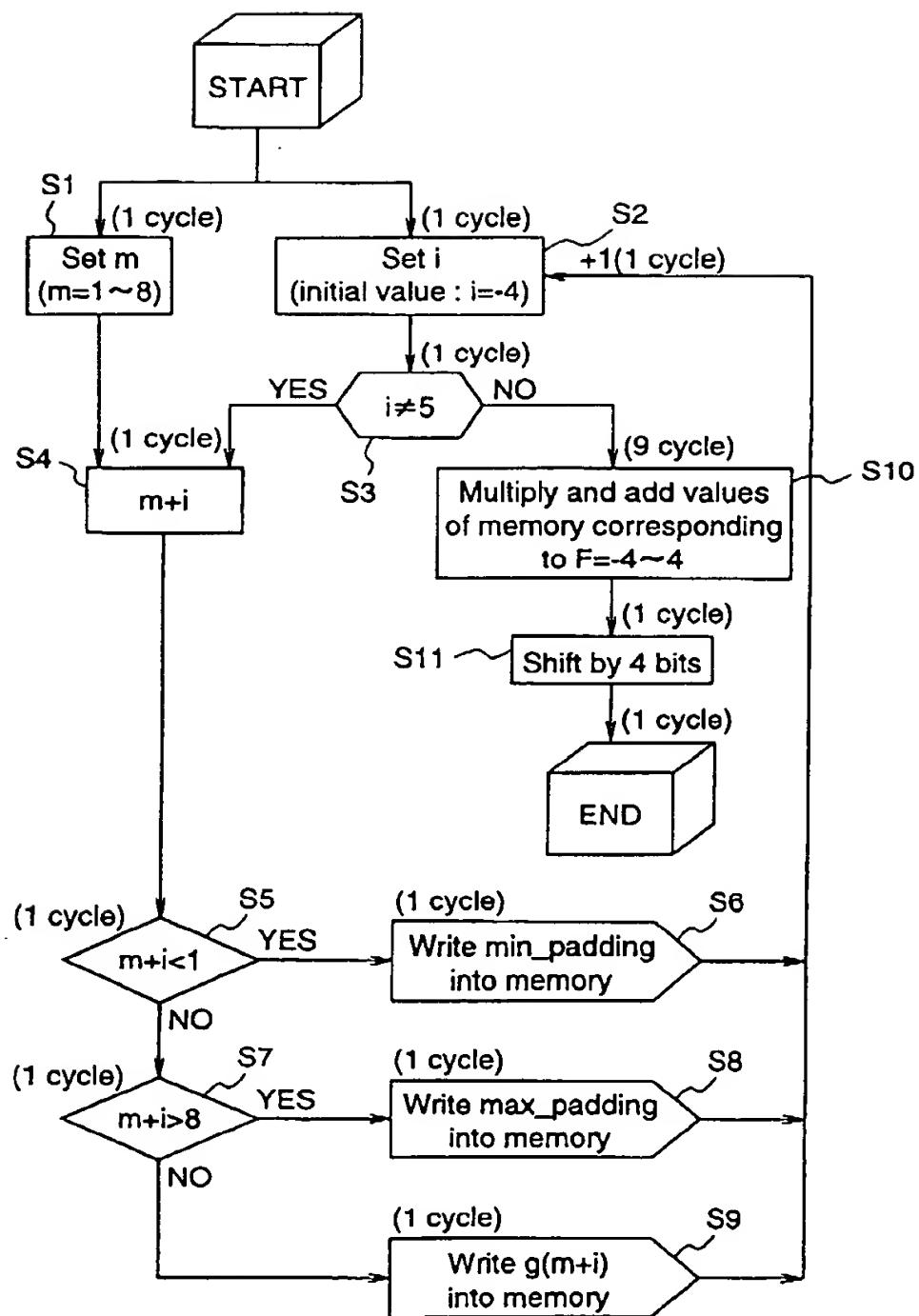


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Fig.2

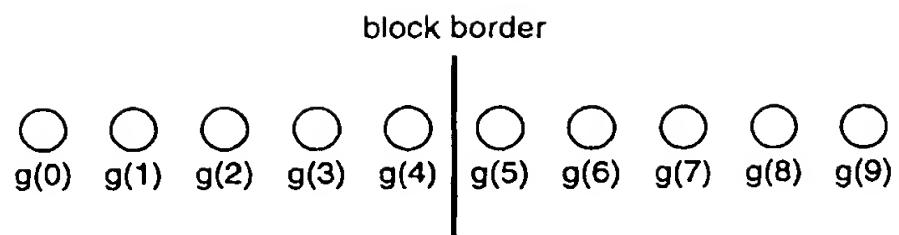
CNT	inputted register	stored data	m=1	m=2	m=3	m=4
0	AU AL CRU CRL	g(1) g(2) max_pad min_pad	● ● ● ●	● ● ● ●	● ● ● ●	● ● ● ●
			M=AU<<2 +AL<<1+8	N=AU<<1 +AL<<2+8	P=AU<<1 +AL<<1+8	Q=AU+AL<<1 +8
1	AU AL CRU CRL	g(3) g(4) max_pad min_pad	● ● ● ●	● ● ● ●	● ● ● ●	● ● ● ●
			M=AU<<1 +AL+M	N=AU<<1 +AL<<1+N	P=AU<<2 +AL<<1+P	Q=AU<<1 +AL<<2+Q
2	AU AL CRU CRL	g(5) g(6) max_pad min_pad	● ● ● ●	● ● ● ●	● ● ● ●	● ● ● ●
			M=AU+CRL<<1 +M	N=AU+AL +N	P=AU<<1 +AL+P	Q=AU<<1 +AL<<1+Q
3	AU AL CRU CRL	g(7) g(8) max_pad min_pad	● ● ● ●	● ● ● ●	● ● ● ●	● ● ● ●
			M=CRL<<1 +CRL<<1+M	N=CRL<<1 +CRL<<1+N	P=AU+CRL +P	Q=AU+AL +Q
4	AU AL CRU CRL	g(7) g(8) max_pad min_pad				
			Don't Care	Don't Care	P=CRL+0 +P	Q=CRL+0 +Q
5	AU AL CRU CRL	g(7) g(8) max_pad min_pad				
			Don't Care	Don't Care	Don't Care	Don't Care
6	AU AL CRU CRL	g(9) g(10) max_pad min_pad	● ● ● ●	● ● ● ●	● ● ● ●	● ● ● ●
			M=AU<<2 +AL<<1+8	N=AU<<1 +AL<<2+8	P=AU<<1 +AL<<1+8	Q=AU+AL<<1 +8
7	AU AL CRU CRL	g(11) g(12) max_pad min_pad	● ● ● ●	● ● ● ●	● ● ● ●	● ● ● ●
			M=AU<<1 +AL+M	N=AU<<1 +AL<<1+N	P=AU<<2 +AL<<1+P	Q=AU<<1 +AL<<2+Q
8	AU AL CRU CRL	g(13) g(14) max_pad min_pad	● ● ● ●	● ● ● ●	● ● ● ●	● ● ● ●
			(Repeat the second cycle~ the seventh cycle after CNT=8)			
			8 +min_pad +min_pad +min_pad +min_pad<<1 +min_Pad<<1 +g(1)<<2 +g(2)<<1 +g(3)<<1 +g(4)<<1 +g(5)	8 +min_pad +min_pad +min_pad +min_pad<<1 +g(1)<<1 +g(2)<<1 +g(3)<<2 +g(4)<<1 +g(5)<<1 +g(6)	8 +min_pad +min_pad +g(1) +g(2)<<1 +g(3)<<1 +g(4)<<2 +g(5)<<1 +g(6)	8 +min_pad +g(1) +g(2)<<1 +g(3)<<1 +g(4)<<2 +g(5)<<1 +g(6)<<1 +g(7)

Fig.3



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Fig.4



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Fig.5

CNT	inputted register	stored data	m=5	m=6	m=7	m=8
0	AU AL CRU CRL	g(1) g(2) max_pad min_pad	● ● ● ●	● ● ● ●	● ● ● ●	● ● ● ●
			R=AU+AL +8	S=AL +8	T=0+0 +T	U=0+0 +U
1	AU AL CRU CRL	g(3) g(4) max_pad min_pad	● ● ● ●	● ● ● ●	● ● ● ●	● ● ● ●
			R=AU<<1 +AL<<1+R	S=AU+AL<<1 +S	T=AU+AL +8	U=AL+0 +8
2	AU AL CRU CRL	g(5) g(6) max_pad min_pad	● ● ● ●	● ● ● ●	● ● ● ●	● ● ● ●
			R=AU<<2 +AL<<1+R	S=AU<<1 +AL<<2+S	T=AU<<1 +AL<<1+T	U=AU+AL<<1 +U
3	AU AL CRU CRL	g(7) g(8) max_pad min_pad	● ● ● ●	● ● ● ●	● ● ● ●	● ● ● ●
			R=AU<<1 +AL+R	S=AU<<1 +AL<<1+S	T=AU<<2 +AL<<1+T	U=AU<<1 +AL<<2+U
4	AU AL CRU CRL	g(7) g(8) max_pad min_pad	● ● ● ●	● ● ● ●	● ● ● ●	● ● ● ●
			R=CRU+0 +R	S=CRU+CRU +S	T=CRU<<1 +CRU+T	U=CRU<<1 +CRU<<1+U
5	AU AL CRU CRL	g(7) g(8) max_pad min_pad	● ● ● ●	● ● ● ●	● ● ● ●	● ● ● ●
			R=0+0 +R	S=0+0 +S	T=CRU+0 +T	U=CRU+CRU +U
6	AU AL CRU CRL	g(9) g(10) max_pad min_pad	● ● ● ●	● ● ● ●	● ● ● ●	● ● ● ●
			R=AU+AL +8	S=AL +8	T=0+0 +T	U=0+0 +U
7	AU AL CRU CRL	g(11) g(12) max_pad min_pad	● ● ● ●	● ● ● ●	● ● ● ●	● ● ● ●
			R=AU<<1 +AL<<1+R	S=AU+AL<<1 +S	T=AU+AL +8	U=AL+0 +8
8	AU AL CRU CRL	g(13) g(14) max_pad min_pad	● ● ● ●	● ● ● ●	● ● ● ●	● ● ● ●
			(Repeat the second cycle~ the seventh cycle after CNT=8)			
			8 +g(1) +g(2) +g(3)<<1 +g(4)<<1 +g(5)<<2 +g(6)<<1 +g(7)<<1 +g(8) +max_pad	8 +g(2) +g(3) +g(4)<<1 +g(5)<<1 +g(6)<<2 +g(7)<<1 +g(8)<<1 +max_pad	8 +g(3) +g(4) +g(5)<<1 +g(6)<<1 +g(7)<<2 +g(8)<<2 +g(8)<<1 +max_pad<<1	8 +g(4) +g(5) +g(6)<<1 +g(7)<<1 +g(8)<<2 +max_pad<<1 +max_pad +max_pad +max_pad

Fig.6

CNT	OUTD (output selection)								output
	M	N	P	Q	R	S	T	U	
0									
	X	X	X	X	X	X	X	X	X
1									
	X	X	X	X	X	X	X	X	X
2									
	X	X	X	X	X	X	X	X	X
3									
	X	X	X	X	X	X	X	X	X
4									
	1●	2●	X	X	X	X	X	X	1,2
5									
	X	X	3●	4●	X	X	X	X	3,4
6									
	X	X	X	X	5●	6●	X	X	5,6
7									
	X	X	X	X	X	X	7●	8●	7,8
8									
	X	X	X	X	X	X	X	X	X
	(Repeat the second cycle~ the seventh cycle after CNT=8)								